

Esercitazione su Globus Toolkit 2:  
Librerie Java – 1ª Parte

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## Interrogazione di un server LDAP

```
import netscape.ldap.*;
import java.util.*;

public class LDAPSearch {
    public static void main (String args[]) {
        String server = "jupiter.deis.unical.it";
        int port = 2135;
        String basedn = "Mds-Vo-name=local, o=Grid";
        int scope = LDAPConnection.SCOPE_SUB;
        // oppure = LDAPConnection.SCOPE_ONE
        // oppure = LDAPConnection.SCOPE_BASE
        String filter = "objectclass=*";
        String attrNames[] = null;
        // oppure = {"attr1", "attr2", ...};
        boolean attrsOnly = false;
        // se = true non restituisce i valori degli attributi trovati
    }
}
```

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## Interrogazione di un server LDAP (cont.)

```
try {
    LDAPConnection ld = new LDAPConnection();
    ld.connect(server, port);
    LDAPSearchResults res = ld.search(basedn, scope, filter, attrNames, attrsOnly);
    if (ld.isConnected())
        ld.disconnect();
    while (res.hasMoreElements()) {
        LDAPEntry findEntry = null;
        try {
            findEntry = res.next();
        } catch (LDAPReferralException e) {
            continue;
        } catch (LDAPException e) {
            System.err.println("Error: "+e.toString());
            continue;
        }
        String dn = findEntry.getDN();
        System.out.println ("dn: "+dn);
    }
}
```

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## Interrogazione di un server LDAP (cont.)

```
LDAPAttributeSet findAttrs = findEntry.getAttributeSet();
Enumeration enumAttrs = findAttrs.getAttributes();
while (enumAttrs.hasMoreElements()) {
    LDAPAttribute anAttr = (LDAPAttribute)enumAttrs.nextElement();
    String attrName = anAttr.getName();
    Enumeration enumVals = anAttr.getStringValues();
    while (enumVals.hasMoreElements()) {
        System.out.print (attrName+": ");
        String val = (String)enumVals.nextElement();
        System.out.println (val);
    }
}
System.out.println();
}
} catch( LDAPException e ) {
    System.err.println("Error: "+e.toString());
}
}
}
```

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## Trasferimento di un file con GridFTP

```
import org.globus.io.urlcopy.UriCopy;
import org.globus.util.GlobusURL;

public class FileCopy {
    public static void main(String[] args) {
        String fromURL = "gsiftp://thebe.deis.unical.it//home/paolo/file1";
        String toURL = "gsiftp://jupiter.deis.unical.it//home/paolo/file1";
        boolean thirdPartyTransfer = true;
        try {
            GlobusURL from = new GlobusURL(fromURL);
            GlobusURL to = new GlobusURL(toURL);
            UriCopy uc = new UriCopy();
            uc.setSourceUrl(from);
            uc.setDestinationUrl(to);
            uc.setUseThirdPartyCopy(thirdPartyTransfer);
            uc.copy();
        } catch(Exception e) {
            System.err.println(e);
        }
    }
}
```

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## Sottomissione di un semplice job

```
import org.globus.gram.Gram;
import org.globus.gram.GramJob;
import org.globus.gram.GramJobListener;

class SimpleGramJobListener implements GramJobListener {
    public synchronized void statusChanged(GramJob job) {
        String jobId = job.getIDAsString();
        String status = job.getStatusAsString();
        System.out.println("Job ID : "+jobID);
        System.out.println("Status : "+status+"\n");
        if (status.equals("DONE"))
            System.exit(1);
    }
}
```

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## Sottomissione di un semplice job (cont.)

```
public class JobRun {
    public static void main(String [] args) {
        String contact = "jupiter.deis.unical.it";
        String rsl = "&(executable=/bin/date)(stdout=/home/paolo/datefile)";
        // esegue "/bin/date" sulla macchina remota e memorizza
        // il risultato nel file remoto "/home/paolo/datefile"
        GramJob job = new GramJob(rsl);
        job.addListener(new SimpleGramJobListener());
        try {
            job.request(contact);
            System.out.println("Job submitted: "+job.getIDAsString()+"\n");
        } catch(Exception e) {
            e.printStackTrace();
        }
    }
}
```